

IN THE SPECIFICATION

Page 3, line 6 through page 5, line 10, please replace the text in its entirety with the following:

In a surface layer substance of the bacterial cell of the S. mutans being a kind of the mutans streptococci, it was identified that a protein antigen called as PAc (Protein Antigen cerotype C) with about 190000 molecular weight related with an initial adhesion of the mutans streptococci to a tooth surface in the research using the monoclonal antibody in which said protein antigen was used as the antigen. Moreover, a research for specifying a certain part in the PAc, which purely related with the initial adhesion of the mutans streptococci to the tooth surface, had been advanced, and it was identified that an A area having a α spiral structure in the PAc (a part of the amino acid sequence 216-464) strongly influenced colonization and adhesion on the tooth surface by the S. mutans, by Takahashi I. et al, "Immunogenicity and protective effect against oral colonization by Streptococcus mutans of synthetic peptides of a streptococcal surface protein antigen", J. Immunol, (USA) , 1991, 146, p.332-6, by Takahashi I. Infect Immun (USA), Baltimore Md. American Association of Immunologists, 1992, 60, p.623-629, or by Okahashi N, et al, Mol. Microbiol. (USA) , Blackwell Scientific Publications, 1993, 3, p.221-228. Furthermore, Senpuku being one of the present inventors et al. solved what was the most important sequence in the A area of the PAc (refer to nonpatent literature 1, Senpuku H, et al, "An antigenic peptide inducing cross-reacting antibodies inhibiting the interaction of Streptococcus mutans PAc with human salivary components" Infect Immun (USA), Baltimore Md. American Association of Immunologists, 1995, 63, p.4695-4703). After that, it was identified that the sequence strongly acting on an human immune system as the antigen in the A area of the PAc was Y---L--Y (amino acids 6 to 13 of SEQ ID NO:1), which was human B-cell epitope, and L--V-K--A (amino acids 17 to 25 of SEQ ID NO:1), which was a part reacting with various human HLA-DR molecules, (refer to

nonpatent literature 2, Senpuku et al, "Identification of Streptococcus mutans Pac peptide motif binding with human MHC class II molecules (DRBI * 0802, * 1101, * 1401, and * 1405) Immunology (England) , Blackwell Scientific Publications, 1998, 95, p.322-330, and nonpatent literature 3, Senpuku et al, "Inhibitory Effects of MoAbs against a Surface Protein Antigen in Real-Time Adherence In vitro and Recolonization In vivo of Streptococcus mutans" Scand. J. Immunol. (England), Oxford Blackwell Scientific Publications, 2001, 54, p.109-1161 . From this results, the specific amino acid sequence in the PAC, i.e., [NAKATYEAALKQYEADLAAVKKANAA (Pac(361-386))-SEQ ID NO:1] was derived. The details of the amino acid sequence is indicated in the following formula.

[Formula 2] SEQ ID NO:1

Asn Ala Lys Ala Thr Tyr Glu Ala Ala Leu Lys Gln Tyr
Glu Ala Asp Leu Ala Ala Val Lys Lys Ala Asn Ala Ala

Page 8, lines 10-13, please replace the text in its entirety with the following:

[Formula 3] SEQ ID NO:1

Asn Ala Lys Ala Thr Tyr Glu Ala Ala Leu Lys Gln Tyr
Glu Ala Asp Leu Ala Ala Val Lys Lys Ala Asn Ala Ala

Page 14, line 17-20, replace the text in its entirety with the following:

As the primer,

Dr3 (5' cacgtttcttgagttactc 3' (SEQ ID NO:2)) (Horne & Keown, 1993)

and

AmpB (5' ccgctgcactgtgaagctct 3' (SEQ ID NO:3)) (Kimura & Sasazuki, 1992)